Forecasting Errors in the Averseness of Apologizing

Abstract

Transgressions are a pervasive part of social life. Apologizing is often seen as the morally appropriate response to a transgression for perpetrators. Yet, despite the positive effects that apologies elicit after situations of conflict, they are not always delivered easily. We argue that this is due –at least in part- to perpetrators overestimating the averseness of apologizing, thus committing a forecasting error. Across two laboratory experiments and one autobiographical recall study, we demonstrate that perpetrators overestimate the averseness they will experience when apologizing compared to the averseness they experience when they actually apologize. Moreover, we show that this effect is driven by a misconstrual of the effects of an apology. Perpetrators overestimate the potentially negative effects of apologizing while simultaneously underestimating the potentially positive effects of apologizing. This forecasting error may have a negative effect on the initiation of the reconciliation process, due to perpetrators believing that apologizing is more averse than it actually is.

Keywords: Apologies; Conflict Resolution; Forecasting Errors; Perpetrators; Reconciliation

Forecasting Errors in the Averseness of Apologizing

Wherever people work and live in groups, transgressions are bound to happen. Examples abound in which people fail to keep their promises, violate each other's expectations, and make decisions that put their own interests before those of others. Transgressions like these often are harmful to the interests and well-being of those involved, and when not handled well, can escalate into full-blown conflicts and discontinuation of relationships. Transgressions that are not handled in a satisfactory way can therefore threaten the cooperative nature of our social and organizational lives, and as a result can cause continued stress among those involved. For this reason, it is important that conflicting parties reconcile after a transgression.

One important response that can be demanded from perpetrators in order to restore a relationship after a transgression is to deliver an apology. From early on in life, people are socialized into taking responsibility for their transgressions by apologizing (Bennett & Dewberry, 1994; Risen & Gilovich, 2007). Doing so contributes to the resolution of conflicts because by apologizing, perpetrators implicitly (and sometimes explicitly) acknowledge that the transgression should not have happened, thereby reaffirming the moral codes of conduct within their community and restoring respect to the victim (De Cremer & Schouten, 2008; Gill, 2000; Kim, Ferrin, Cooper, & Dirks, 2004; Tavuchis, 1991). For these reasons, apologies are the expected response to misconduct (Goffman, 1971; Tavuchis, 1991) – to the point that apologizing has been characterized as a moral duty of perpetrators (Barkan & Karn, 2006). In other words, after having transgressed, apologizing is "the right thing to do" (Tucker, Turner, Barling, Reid, & Elving, 2006, p. 205).

Despite the existence of a moral obligation for perpetrators to apologize, and despite the importance of apologies to promote reconciliation, perpetrators often fail to deliver an apology.

Failure to apologize is problematic for coping with transgressions, because victims feel strongly entitled to apologies in the aftermath of transgressions (Ohbuchi, Kameda, & Agarie, 1989; Leunissen et al., 2013). Failure to provide apologies therefore will allow conflicts to escalate (Ohbuchi, et al., 1989), and contribute to continuing negative outcomes. Perpetrators' reluctance to apologize is particularly problematic, however, when considering that apologies are often effective as a means to resolve conflicts and promote forgiveness and reconciliation (Aquino, Tripp, & Bies, 2001; Bottom, Gibson, Daniels, & Murnighan, 2002; Leunissen, De Cremer, Reinders Folmer, & Van Dijke, 2013; McCullough, Worthington, & Rachal, 1997). For example, research in organizational settings suggests that apologizing for injustices promotes more favorable impressions and trust in the offender, both among victims and third party observers (Basford, Offermann, & Behrend, 2013; Byrne, Barling, & Dupré, 2014; Conlon & Murray, 2006; Cugueró-Escofet, Fortin, & Canela, 2013; Tucker et al., 2006). In light of these findings, the reluctance to apologize by perpetrators seems all the more puzzling and problematic (Lazare, 2004; Leunissen, De Cremer, & Reinders Folmer, 2012). How can we understand why perpetrators are reluctant to apologize, when evidence suggests that doing so might promote forgiveness and prevent further harmful conflicts?

With the present research, we aim to provide an answer to this question. We suggest that perpetrators may overestimate the averseness of apologizing, expecting it to be more averse than they actually experience it to be when providing an apology. More specifically, we argue that perpetrators may display a forecasting error when considering apologizing, which may limit their willingness to apologize – in spite of the effectiveness of apologies as a means to promote forgiveness and reconciliation, and perpetrators' relative satisfaction when actually offering them.

Understanding perpetrators' reluctance to apologize

Why would perpetrators be reluctant to apologize? Recent advances in research on apologizing and reconciliation have revealed a number of reasons that explain why perpetrators may think negatively about apologizing. One reason may be that in many cases, perpetrators may not acknowledge that they have transgressed, or may see their behavior as justified, and therefore are unwilling to apologize (Baumeister, 1999; Leunissen et al., 2013). Research on the intrapsychological effects of apologizing suggests that refusing to apologize may protect the perpetrator's self-esteem (Okimoto, Wenzel, & Hedrick, 2013). In line with this, research has suggested that apologizing may be threatening to perpetrators by undermining their status or power position. Perpetrators fear that by apologizing, they surrender power by providing the victim with the choice to forgive or not, and fuelling demands for compensation (Leunissen et al., 2012; Shnabel & Nadler, 2008). This is paralleled by studies conducted in organizational settings, which shows that leaders may fear that apologizing makes them look weak and could threaten their authority, or may harm their interests by increasing the risk for demands of financial compensation (Cohen, 1999; Tucker et al., 2006). In light of such averse potential effects of apologizing, it may not be surprising that perpetrators hold negative associations with the act of apologizing (Lazare, 2004).

But are these associations in fact accurate? There is some evidence that suggests they are not. Although perpetrators may expect apologizing to have negative implications for them, there is research that suggests that perpetrators in fact may display rather favorable reactions after having actually apologized. For example, anecdotal evidence suggests that perpetrators are generally content with the apologies they have offered (Lazare, 2004), and empirical research shows that perpetrators feel more regret over the apologies they have not offered than over

apologies they have offered, suggesting that perpetrators look back positively at apologies once they have offered them (Exline et al., 2007). Moreover, research among leaders in organizational settings suggests that apologizing is associated with psychological well-being for perpetrators, including emotional health and authentic pride (Byrne et al., 2014). And lastly, as noted, research has shown that apologies may effectively promote outcomes that are valuable to perpetrators in the aftermath of transgressions, such as more favorable impressions, reconciliation, forgiveness and reduction of conflict (e.g., Aquino et al., 2001; Bottom et al., 2002; Leunissen et al., 2013; Tucker et al., 2006). In sum, these findings suggest that after having apologized, perpetrators may look upon apologies rather favorably. This does not seem to be in line with the negative associations that perpetrators have in advance with apologizing. We propose that these seemingly contradictory research findings fit the pattern of what is referred to in the social psychological literature as an affective forecasting error.

The affective forecasting literature notes that people are not very good at predicting their future affective states (Wilson & Gilbert, 2003). Specifically, research on affective forecasting errors shows that people are usually inaccurate in predicting the affective intensity of future events (Wilson & Gilbert, 2003; Wilson et al., 2000). For instance, people overestimate the intensity of regret they will experience when just missing the subway (Gilbert, Morewedge, Risen, & Wilson, 2004), and they overestimate the intensity of happiness that they will experience when their favorite football team wins (Wilson, et al., 2000). We suggest that the differences between people's expected averseness of apologizing and their experienced averseness after having apologized may similarly constitute a forecasting error, such that people overpredict the averseness of apologizing.

We suggest that the reason for this forecasting error may lie in the way that people misconstrue the act of apologizing. Misconstruing the nature of a future event (i.e. imagining an event that is qualitatively different from the actually experienced event) is an important source of forecasting errors (Wilson & Gilbert, 2003). People may similarly misconstrue the act of apologizing by overestimating the negative effects of apologizing, while simultaneously underestimating the positive effects of apologizing. This prediction follows from research showing that the potential for negative effects of behavior cause more distress and has a greater influence on representation of that behavior than the potential for positive effects of behavior (Baumeister et al., 2001 or Taylor, 1991). With regard to apologizing, these findings thus suggest that perpetrators will overestimate the negative effects of apologizing, while simultaneously underestimating the positive effects of an apology. As a consequence, when predicting how they will experience the act of apologizing, perpetrators may place disproportionate weight on the potential negative effects of apologizing – while their actual experience of apologies is likely to be characterized by more positive effects, given the generally positive impact of apologies have on forgiveness and reconciliation (see Aquino et al., 2001; Bottom et al., 2002; Lazare, 2004; Leunissen et al., 2013; Tucker et al., 2006) and on perpetrators' personal wellbeing (Byrne et al., 2014; Exline et al., 2007). This results in a forecasting error in which perpetrator overestimate the experienced averseness of an apology.

The present research

In the present research, we aim to provide more insight into the factors that influence the willingness of perpetrators to apologize after transgressions. By doing so, we aim to extend the literature on apologies and reconciliation in several ways. Firstly, we provide more insight on the psychology of apologizing in perpetrators – a perspective that has received relatively little

attention in the literature, which has primarily focused on victims, and especially victims' reactions to apologies (Palanski, 2012; Leunissen et al., 2012). Second, we identify an important intrapersonal process in the reconciliation phase, namely their construal of the act of apologizing. This forecasting error in turn may limit the willingness of perpetrators to apologize. The limited research that has been conducted on the willingness to apologize has focused primarily on interpersonal processes that influence the willingness to apologize (e.g. victims' reactions to a transgression, see Leunissen et al., 2012). We suggest that intrapersonal processes may also play an important role in people's decisions to apologize (see also Okimoto et al. 2013). Indeed, as forecasting errors have been shown to have an important influence on behavior (Wilson & Gilbert, 2003), and forecasting errors are prevalent when construing distressing situations, such as apologizing, forecasting errors could play a pivotal role in the apology process as well (e.g. De Cremer, Pillutla, & Reinders Folmer, 2011). Finally, the present research may extend the literature on reconciliation by identifying a bias that deters perpetrators from apologizing. If perpetrators indeed overestimate the averseness of apologizing, then this identifies an important intrapersonal obstacle to reconciliation – and thereby may point at novel ways of promoting reconciliation, by countering such misperceptions. These reasons illustrate why it is important to know whether perpetrators overestimate the averseness of apologizing.

We tested our hypothesis in both controlled laboratory experiments (which provide high internal validity; Studies 1a and 1b) and an autobiographical narrative study (which yields a high ecological validity; Study 2). Because a laboratory experiment provides control over the type of transgression that is committed, we decided to sacrifice ecological validity for internal validity in Study 1a and 1b, and to opt for an experimental methodology first. As the type of transgression that perpetrators commit (Leunissen et al., 2013) and the way that victims react to transgressions

(Leunissen et al., 2012) both have an effect on the willingness of perpetrators to apologize, a method was required that would allow us to test our forecasting hypothesis independently from the disrupting impact of these variables. We therefore opted for a paradigm in which we could experimentally induce a transgression, allowing us to test our hypothesized forecasting error in a highly controlled way. Study 1a provides a first test for our hypothesis in a laboratory setting. In line with a recently increased emphasis on replications in experimental research (Simmons, Nelson, & Simonsohn, 2011), we sought to replicate the findings of Study 1a in Study 1b. In Study 1b, we also wanted to rule out a (methodological) alternative explanation for the findings in our initial study.

Subsequently, we complement these findings in Study 2 by testing our hypothesis using autobiographical narrative methodology (e.g. Baumeister, Stillwell, & Wotman, 1990; Leunissen et al., 2013). This approach allowed us to examine the averseness of actually delivered apologies after naturally occurring transgressions, and to compare it with the forecasted averseness of apologizing in similar circumstances. Indeed, this multi-method approach, in which we replicated the same effect over different types of methodologies, each with its own strengths and drawbacks (generalizability, ecological validity, internal validity), provides a stringent test for our hypothesis.

Study 1a

In this study, we aim to test our hypothesized forecasting effect: the predicted averseness of apologizing is higher than the actually experienced averseness when perpetrators apologize. To test this forecasting effect, we induced participants to commit an interpersonal transgression. We compared responses of participants who were asked to imagine apologizing for the transgression with those of participants who were asked to actually apologize.

In addition, we also included a third condition in which participants imagined committing a transgression and imagined apologizing for the transgression. While the latter condition is not of central importance for the present study, its inclusion here is important for interpreting the design of Study 2. In the latter study, the recalled averseness of actual apologies for actual transgressions will be compared to predicted averseness of imagined apologies for imagined transgressions. As such, it is important to investigate whether imagining or actually committing a transgression has an independent effect on the predicted averseness of apologizing.

Method

Participants & design. A total of 118 undergraduate business students (58 women; M_{age} = 21.4; SD_{age} = 2.7) participated for partial course credit. They were randomly assigned to one of three conditions of our forecasting manipulation. Specifically, they were either assigned to an *imagined transgression & imagined apology* condition, a *real transgression & imagined apology* condition, or a *real transgression & real apology* condition.

Procedure. The first part of the experiment was designed to induce a transgression. After the participants had committed the transgression we introduced our forecasting manipulation and finally we assessed the dependent variables.

Transgression. We used a paradigm developed by SimanTov-Nachlieli and Shnabel (2014) to experimentally create a transgression. The study was introduced to participants as a study on performance-contingent pay. It was explained that participants could win points in this experiment. These points earned participants tickets for a lottery for a 50 Euro gift voucher. Participants would play a general knowledge quiz through a computer network, against another participant who was ostensibly also in the lab (in reality, the interaction with this ‘other player’ was preprogrammed). Before participants played the game, they were asked to divide 60 chips

between themselves and the other player (the other player could also divide 60 points). It was explained that the 60 chips would be divided in accordance with the proposed division of the winner of the quiz.

After participants proposed a division of the points, they continued to the knowledge quiz. This quiz consisted of 5 multiple choice questions and 5 questions on which participants had to estimate the correct answer (e.g. “How many moons does the planet Mars have?”). Participants would receive 1 point for each correctly answered multiple-choice question. One point for each estimation question was awarded to the player from each quiz dyad who was closest to the correct answer on each estimate question. The quiz was rigged by telling participants afterwards they were closer to the real answer than their opponent was on the estimation questions. As such, we could tell every participant that they were the winner of the quiz and that the points would be divided as they had decided at the beginning of the experiment.

Forecasting manipulation. Participants in the *real transgression* conditions were told that they had divided the points less fairly than the other player and not in accordance with the social norms in these kinds of situations. Participants in the *real transgression & imagined apology* condition were asked to imagine apologizing to the other player for this. Participants in the *real transgression & real apology* condition were told that they had to apologize for this to the other player. On the next screen, they could type in the apology and send it to the other player. The apologies were coded by an independent coder who was uninformed about the purpose of this study. Of the 39 participants in the *real transgression & real apology* condition, 7 gave responses that were not considered to be apologies by the coder. These 7 participants were excluded from the analyses. Participants in the *imagined transgression & imagined apology* condition were asked to imagine they had divided the point unfairly and not in accordance with

social norms in these situations, and were asked to imagine apologizing for this. After the manipulation, (forecasted) averseness towards apologizing was measured with: How "stressful", hard", "unpleasant", "humiliating" it was (would it be) to apologize? ($\alpha = .89$; all items were measured on a 1 = *not at all*, to 7 = *very much* scale). Exploratory factor analysis showed that the 4 items loaded on a single factor with an eigenvalue of 3.03, explaining 75.84% of the variance.

Results

Our procedure was aimed at experimentally creating perpetration in the lab by giving participants feedback about their division of points. We checked the credibility of this induction by checking the actual divisions of chips that participants made: 63.1% of the participants decided to keep more chips for themselves than to give to the other player, 34.2% of the participants made an equal split between themselves and the other player; 2.7% of the participants gave more chips to the other player than they kept for themselves. When controlling for the amount of chips kept by the participant in the analysis of our main dependent variable the results do not change in a meaningful way.

An ANOVA with the forecasting manipulation and the amount of points kept by the participant as independent variables showed a significant main effect of the forecasting manipulation ($F(2, 107) = 4.32$, $p = .02$, $\eta^2 = .08$). The main effect of the amount of chips kept by the participant was not significant ($F(1, 107) = 1.57$, $p = .21$, $\eta^2 = .01$). Planned comparisons indicated that participants in *the real transgression & real apology condition* experienced less averseness towards apologizing ($M = 2.73$, $SD = 1.54$) than participants predicted in the *imagined transgression & imagined apology* condition ($M = 3.74$, $SD = 1.47$; $p = .004$) and participants in the *real transgression & imagined apology* condition ($M = 3.33$, $SD = 1.55$; $p =$

.08). There was no difference in predicted averseness between the *imagined transgression & imagined apology* condition and the *real transgression & imagined apology* condition (p = .23).

Discussion

These results are in line with the hypothesis that perpetrators make a forecasting error when predicting how aversive it is to apologize. Perpetrators in both imagined apology conditions overestimated the averseness of apologizing compared to the averseness that perpetrators experienced in the real apology condition. Perpetrators also overestimated the averseness of an apology when imagining both committing a transgression and imagining apologizing for it. This shows that the forecasting error does not only emerge when people have already committed a transgression but rather that averseness is generally associated with apologizing. This finding shows that the predicted averseness of apologizing is not so much influenced by whether people have actually committed a transgression or not.

Study 1b

Study 1b was conducted to replicate the findings of Study 1a and to address a potential limitation of this study. Specifically, in Study 1a, participants received specific instructions about how to actually apologize (by typing the apology into the pop-up screen, which would then be communicated via the computer network) whereas participants who imagined apologizing did not receive such specific instructions. One alternative explanation for the results of Study 1a is thus that participants' imagined apology actually took a more averse form (e.g., having to do it in public) than the actual apology. In Study 1b, we therefore asked participants in the imagined apology condition to also imagine typing in an apology into the pop-up screen.

Method

Participants & design. A total of 89 undergraduate business students (36 women; M_{age} = 21.21; SD_{age} = 2.06) participated for partial course credit.

Procedure. We used the same procedure as in Study 1, with one exception. This time in the forecasting conditions, it was explicitly stated how the apology would be given. More precisely, we wrote: *Imagine that you were told to apologize for this by means of typing a message on the next screen.*

Results

As in Study 1a, we checked the credibility of our transgression induction: 78.2% of the participants decided to keep more chips for themselves than to give to the other player, 18.4% of the participants made an equal split between themselves and the other player; 3.4% of the participants gave more chips to the other player than they kept themselves. We control for the amount of chips kept by the participant in the analysis of our main dependent variable. Excluding the amount of chips kept by the participant as a control variable does not change the reported results in a meaningful way.

An ANOVA with the forecasting manipulation and the amount of chips kept by the participant as independent variables showed a main effect of the forecasting manipulation (F(2, 83) = 2.89, p = .06, η^2 = .07). The main effect of the amount of chips kept by the participant was not significant (F(1, 83) = .43, p = .51, η^2 = .005). Planned comparisons indicated that participants in *the real transgression & real apology* condition experienced less averseness towards apologizing (M = 2.45, SD = 1.07) than participants predicted in the *imagined transgression & imagined apology* condition (M =3.21, SD = 1.33; p = .04) and participants in the *real transgression & imagined apology* condition (M = 3.27, SD = 1.66; p = .03). There was

no difference in predicted averseness between the *imagined transgression & imagined apology* condition and the *real transgression & imagined apology* condition (p = .89).

Discussion

Study 1b replicated the results of Study 1a, and addressed a methodological issue of Study 1a. Specifically, we ruled out the possibility that our forecasting effect was driven by different construals between the forecast and experience conditions of how the apology would be delivered. In the forecasting conditions, we explicitly described how the apology would be delivered, similar to the *real transgression & real apology* condition. Nevertheless, the results were in line with the hypothesized forecasting error. Moreover, we replicated our finding that the forecasted averseness of an apology is not influenced by whether the transgression is imagined or actually committed: in both conditions, the forecasted averseness of apologizing was again significantly higher than the averseness of an actual apology.

Study 2

Study 2 was designed to expand upon the findings of Study 1 in a number of ways. First, we wanted to test whether the observed forecasting error could be generalized to real-world social situations. In Studies 1a and 1b, the interpersonal offense and the apology were situated in a (preprogrammed) computer network setting, allowing for strong experimental control. Yet, this is a relatively artificial situation. In order to test our hypothesis in an ecologically valid situation, we employed an autobiographical narrative methodology, in which we asked participants to remember an apology they had given in the context of their daily life (Baumeister, et al., 1990; Leunissen et al., 2013). We compared the averseness of a delivered apology to the forecasted averseness of an apology under similar circumstances. This design meant that participants had to imagine both committing a transgression as well as imagine apologizing for that transgression.

This forms a potential confound in our design because both the transgression and the apology are imagined (vs. actually experienced). However, studies 1a and 1b offer some confidence in the validity of this design. In these studies, we showed that imagining versus actually committing a transgression did not have an independent effect on the predicted averseness of apologizing.

Because we have no control over the transgressions that participant imagine and remember, they may remember or imagine transgressions of a fundamentally different nature and, as a result, base the averseness of the apology on fundamentally different transgressions. For instance, perpetrators may downplay the severity of a remembered transgression (Baumeister et al., 1990), relative to an imagined transgression. To exclude the possibility that our forecasting effect is driven by fundamentally different transgressions that participants imagine or remember, we measured two common dimensions on which transgressions can be categorized: severity and intentionality (e.g. Aquino et al., 2006; Desmet & Leunissen, 2014; Leunissen et al., 2013).

Second, Study 2 was designed to test our proposed mediating mechanism. As noted in the introduction, we believe that the reason that people overestimate the averseness of apologizing is because they overestimate the potentially negative effects of apologizing while they underestimate the potentially positively effects of apologizing. In order to test whether this misconstrual of apologies indeed drives our forecasting effect, we measured the predicted and actually experienced positive and negative effects of apologizing in this study.

Finally, in this study we aimed to improve our dependent measure. In Studies 1a and 1b, we showed that people overestimate the averseness of apologizing. However, people have been shown to make forecasting errors in both positive and negative domains (e.g. Gilbert, et al., 2004; Wilson, et al., 2000). As such, to show that people overestimate the averseness of

apologizing, and not simply overestimate effects of apologizing in both the positive and negative domain, we added 4 positively valenced items to our averseness scale.

Method

Participants & design. A total of 164 respondents (62 women; M_{age} = 32.06; SD_{age} = 10.76) participated in this study. Respondents were recruited through the online system Amazon Mechanical Turk (MTurk). Respondents were randomly assigned to a forecasting or experience condition.

Procedure. This study was introduced as a study on social experiences. In the forecasting condition, participants were asked: *In this study, we are interested in social experiences, and specifically in negative social experiences. Below, we would like to ask you to imagine a situation in which you do something that somebody else experiences as unfair or unjust. Please note, we ask you to imagine a situation, so please do not think of a situation that has actually happened.*

Participants in the experience condition were asked: *In this study, we are interested in social experiences, and specifically in negative social experiences. Below, we would like to ask you to recall a situation in which you did something that somebody else experienced as unfair or unjust. Specifically, we would like you to remember a situation for which you later did apologize.* Participants in both the forecasting and the experience condition were asked to write down a paragraph on the incident.

Measures. All items were measured on a 1 (*not at all*) to 7 (*very much*) scale. Averseness of apologizing was measured with the same items as in Study 1a and 1b and 4 additional, positively valenced, items: How relieving would it be to apologize?; 2) How easy would it be to apologize?; 3) How positive would it be to apologize?; 4) How rewarding would it be to

apologize? These four items were recoded, such that a higher score on the total scale indicated a stronger averseness of apologizing. The total scale showed a good reliability ($\alpha = .83$).

We measured the (anticipated) positive effects of apologizing with 3 items: 1) How likely is it that the other will accept the apology?; 2) Do you think an apology will help to restore the relationship with the other?; 3) How likely is it that the other will forgive you when you apologize? ($\alpha = .64$).

We measured the (anticipated) negative effects of apologizing with 3 items: 1) How much would you fear the other will reject the apology?; 2) Do you think the other will take advantage of you because you apologized?; 3) How negatively will others perceive you after you have apologized? ($\alpha = .90$).

We measured transgression severity with four items: How 1) unfair, 2) unjust, 3) unpleasant and 4) severe is (forecasting condition) / was (experience condition) the situation that you just described? ($\alpha = .84$). Intentionality was measured with a single item: The situation that you just described, did you do this accidentally or intentionally? (1 = accidently, 7 = intentionally).

Results

Averseness. An ANOVA with our forecasting manipulation as the independent variable and the averseness scale as the dependent variable indicated a significant effect of our forecasting manipulation ($F(1,162) = 12.49$, $p = .001$, $\eta^2 = .07$). As expected, participants in the forecasting condition predicted the averseness of apologizing as significantly higher (M =4.20, SD = 1.24) than participants in the experience condition experienced the averseness of apologizing (M =3.49, SD = 1.31).

Positive and negative effects of apologizing. An ANOVA with our forecasting manipulation as the independent variable and the positive effects scale as the dependent variable indicated a significant effect of our forecasting manipulation ($F(1,162) = 57.43$, $p < .001$, $\eta^2 = .26$). As expected, participants in the forecasting condition underestimated the positive effects of an apology ($M = 3.82$, $SD = 1.43$), compared to positive effects of an apology that participants in the experience condition experienced ($M = 5.41$, $SD = 1.27$).

An ANOVA with our forecasting manipulation as the independent variable and the negative effects scale as the dependent variable indicated a significant effect of our forecasting manipulation ($F(1,162) = 9.44$, $p = .002$, $\eta^2 = .06$). Participants in the forecasting condition overestimated the negative effects of an apology ($M = 3.39$, $SD = 1.30$), compared to negative effects of an apology that participants in the experience condition experienced ($M = 2.79$, $SD = 1.23$).

Mediation analysis. In order to provide further support that the overestimation of negative effects and the underestimation of positive effects mediates the forecasting effect on averseness, we first regressed the positive effects and negative effects scales (standardized) and the forecasting manipulation (effect coded: -1 = forecasting condition, 1 = experience condition) on averseness. This indicated a significant effect of the positive effects scale ($\beta = -.36$, $t(160) = -4.81$, $p < .001$) and the negative effects scale ($\beta = .42$, $t(160) = 6.31$, $p < .001$), but not of the forecasting manipulation ($\beta = .01$, $t(160) = .19$, $p = .85$).

Finally, we directly tested the indirect effects of our forecasting manipulations through both the positive effects scale and the negative effects scale on averseness using the PROCESS macro developed by Hayes (2013; 5000 bootstrap samples). This analysis indicated that both the indirect effect through positive effects ($b = -.49$, *S.E.* = .12, 95% CI [-.d74; -.28]), and the

indirect effect through the negative effects scale (b = -.26, *S.E.* = .10, 95% CI [-.48; -.09]) was reliably different from 0, suggesting that the predicted positive and negative effects

Transgression severity and intentionality. We did not find a significant effect of our forecasting manipulation on transgression severity ($F(1,162) = 2.66$, $p = .11$, $\eta^2 = .02$), although the trend indicated that participants imagined slightly more severe transgressions ($M = 5.03$, $SD = 1.28$) than they remembered ($M = 4.70$, $SD = 1.26$). We did find a significant effect of our forecasting manipulation on the intentionality measure ($F(1,162) = 12.63$, $p < .001$, $\eta^2 = .07$). Participants imagined more intentional transgressions in the forecasting condition ($M = 5.54$, $SD = 1.87$) than they remembered in the experience condition ($M = 4.41$, $SD = 2.16$). We reran all the analyses reported while controlling for transgression severity and intentionality. The results did not change in any meaningful way when controlling for these transgression dimensions.

Discussion

In Study 2, we replicated our forecasting effect in an ecologically valid setting: using naturally occurring apologies after naturally occurring transgressions. This study shows that this forecasting error also occurs in everyday interactions. Additionally, it shows that the forecasting effect that we find in Study 1a and 1b is not limited to anonymous situations that potentially have low identity effects but also emerges in the case of face-to-face apologies that people make (or fear to make) in organizational settings. Finally, the forecasting effect was found regardless of the severity of the offense, suggesting that the forecasting error is not contingent on transgressions of either low or high severity.

General discussion

Interpersonal transgressions are a common occurrence in our lives and an apology has been shown to be an appropriate and effective response after such occurrences. In spite of the

satisfaction, wellbeing, and reconciliation that perpetrators often experience when they apologized, perpetrators often fail to apologize for their misbehavior, ostensibly because perpetrators believe it is averse to apologize (Aquino, Tripp, & Bies, 2001; Basford, et al., 2013; Byrne et al., 2014; Lazare, 2004; Tucker et al., 2006). In the present research, we sought to understand this contradiction between the positive effects of an apology and the averse associations that a perpetrator have with apologizing. Based on the affective forecasting literature, we predicted that perpetrators might overestimate how averse apologizing is (Wilson & Gilbert, 2003). The findings of the present research supported our predictions. In Study 1a and 1b we showed that perpetrators commit a forecasting error by overestimating the averseness of an apology. In Study 2, we extended these controlled laboratory results to apologies in meaningful real-world situations. Here, using an autobiographical narrative methodology, we showed the same forecasting error using naturally occurring transgressions and apologies.

Moreover, the findings of Study 2 also show why people make this forecasting error. When thinking about apologizing, people overestimate the negative implication of apologizing, like whether the victim will take advantage of them after apologizing or how negatively others will perceive them after they apologized. Simultaneously, people underestimate the positive effects that an apology has on the victim like the likelihood of forgiveness or of a restored relationship. Indeed, this misconstrual of the effects of an apology on a victim causes people to overestimate the averseness of apologizing.

These findings raise the question of why people do not learn to associate apologies with more positive outcomes, given that apologies are ubiquitous in social life and often have very positive effects. We believe that the rarer instances in which apologies do have negative effects have a stronger impact on the impressions that people create of apologies. This is in line with

research showing that negative events have a stronger impact on representations in memory than positive events have (Baumeister et al., 2001), and these biased representations may in turn predict a forecasting error (Wilson & Gilbert, 2003).

Implications

The present research sheds a new light on the willingness to apologize after transgressions by examining an intrapsychological mechanism that helps to explain why perpetrators may often be unwilling to apologize. Specifically, our findings suggest that the reconciliation process is hindered because of the way perpetrators misconstrue the act of apologizing, thereby overestimating its averseness. That perpetrators make this forecasting error is especially relevant because the affective forecasts that people make about their decision options often have a pivotal impact on the decisions they eventually make (Wilson & Gilbert, 2003). Therefore, the decision to apologize likely depends strongly on the way that perpetrators construe the act of apologizing itself. Because perpetrators overestimate the averseness of apologizing, it is therefore also likely that they will withhold apologies as a result of this forecasting error.

As withholding apologies has negative consequences for the aftermath of transgressions, such as increased anger among victims (Cohen, 1999; Ohbuchi et al., 1989), this forecasting error may also contribute to conflict escalations. In a powerful example, taken from medical practice, Cohen (1999) shows that the delivery of apologies is often hindered by the negative expectations that perpetrators have of them, fearing lawsuits and negative reactions from patients. Contrary to these negative expectations, after making apologizing an institutional practice following medical mistakes, the number of law suits against the hospital dropped (as did the settlement amount when the case was brought to court). Interviews with patients showed they

valued an apology greatly after a mistake because it gave them a sense of justice and assurance the mistake was unlikely to be committed again, thereby decreasing the desire to sue the hospital. Indeed the negative expectations that perpetrators held of apologizing were strongly overestimated, while the positive effects were strongly underestimated. Our research sheds a new light on these findings by showing that these forecasting errors and miscontrual of the effects of an apology are in fact a general phenomenon. This example shows how forecasting errors can have a negative effect on the willingness to apologize and do contribute to the escalation of conflicts (i.e. lawsuits between patients and the hospital). Staying within the context of legal disputes, apologies are an integral part of restorative justice (Wenzel, Okimoto, Feather, Platow, 2010; Strang et al, 2006). Indeed, restorative justice conferences in which a victim and perpetrator meet has been shown to benefit greatly from an apology (Strang, et al, 2006). Mediators of these conferences can benefit from the present results by informing the perpetrator about the biased perceptions of apologies they may very well hold.

Our studies also contribute to a growing understanding of the intrapsychological processes and effects that apologies may have for those who deliver them (e.g. Okimoto et al., 2013). As it is ultimately the perpetrator who decides to apologize or not, knowing more about the effects of apologies on perpetrators provides a fruitful avenue to a more complete understanding of the reconciliation process and the role that apologies play in this process, in addition to interpersonal processes, which have been studied somewhat more extensively (e.g. Leunissen et al., 2012; Shnabel & Nadler, 2008).

Future directions

As the studied forecasting effect is likely to have a negative impact on perpetrators' willingness to apologize, however, future research should investigate whether the forecasts that

people make about apologies have indeed a negative effect on their willingness to apologize. Future research should also investigate how this forecasting effect can be ameliorated. This might not be an easy task given people's preoccupation with negative over positive effects of behavior (Baumeister et al., 1991). Because perpetrators overestimate the negative effects that apologies have, and underestimate the positive effects that apologies have, removing this bias may have a positive effect on perpetrator's expectations of apologies and thereby their willingness to apologize. One of the ways in which the negativity bias can be curbed is to reflect on positive instances of a similar event (Baumeister et al., 2001). Because the majority of apologies that perpetrators deliver are likely to be met with appreciation by the victim, asking perpetrators to reflect on specific apologies they have given and their effects on the victims (rather than relying on the abstract representations that they have of apologies), may help to temporarily eliminate this bias towards the negative effects of apologizing.

When thinking of ways to reduce forecasting errors on reconciliation, it is also important to note that victims may also play an important role in revising these predictions. Specifically, previous research has shown that the victim's stance after a transgression can have a pivotal impact on perpetrators' decisions to apologize or not, such that more forgiving victims are more likely to receive an apology (Leunissen et al., 2012). These findings are important for addressing forecasting errors in reconciliation, because they suggest that perpetrators' pessimistic forecasts on apologies may be adjusted if victims adopt a somewhat forgiving (and avoiding an unforgiving) stance in the aftermath of conflict or transgressions. This way, reactions of victims to a perpetrator may help to remove the obstacles to apologize and reconcile that perpetrators create in their construal of those acts.

Strengths and limitations

By using an online environment in a controlled laboratory setting in Study 1, we were able to keep the setting in which an apology was offered constant within the real apology condition (Van Kleef, De Dreu, & Manstead, 2004). Yet, this controlled setting also implies a limitation because participants could not observe any reaction of the victim to their apology. We therefore replicated the effect obtained in Study 1a and 1b in a naturalistic setting in Study 2. However, a limitation of this naturalistic setting of Study 2 is that participants both imagined a transgression and imagined apologizing for it in the forecasting condition while participants in the experience condition reflected upon an actually committed transgression and an apology that was given afterwards. Although the results of two lab studies showed that the forecasting effect was driven by the (imagined) apology and not whether the transgression was imagined or not, this lab setting was specific for one type of transgression. Transgressions imagined and actually committed in Study 2 could differ on other important dimensions not controlled for in this study, a limitation that is not present in studies 1a and 1b. In sum, we aimed to validly answer our research question by combining different research methodologies, thereby capitalizing on the high levels of experimental control and ecological validity that different research methods yield.

Conclusion

Apologies are an important instrument for victim and perpetrator to reconcile and are generally seen as the morally appropriate course of action after a transgression. However, perpetrators have negative associations with apologizing, therefore may often choose to withhold an apology. We believe that our studies challenge these negative perceptions of apologizing and bring a more positive message in the sense that perpetrators generally look back rather positively on the apologies they have offered. Indeed, making perpetrators more aware of the beneficial

effects of apologizing can have a positive effect on conflicts and allows us to fully capitalize on the positive effects that apologies have.

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